

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
INDIAN INSTITUTE OF REMOTE SENSING
IIRS
DEHRADUN
PURCHASE & STORES
INVITATION TO TENDER**

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Date : 17/07/2018

M/s

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Our Ref No : **GIER** 2018-000078-01

Tender Due: 14:00 Hrs ISTon 06/08/2018

Opening : 16:00 Hrs ISTon 06/08/2018

Dear Sirs,

Please submit your sealed quotation , in the Tender Form enclosed here along with the descriptive catalogues / pamphlets / literature ,superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure(Form No:)

S.No.	Description of Items with Specifications	Unit	Quantity
1	Multi Parameter Water Quality kit/ Probe to measure Optical DO, EC, pH,ORP, Temperature and depth.Capable of calculating parameters such as Salinity, TDS and other.Detailed specifications Terms condition as per Annexure I & II.	No	1

DELIVERY AT: IIRS, DEHRADUN

MODE OF DESPATCH ON SITE

DUTY EXEMPTIONS

SPECIAL INSTRUCTIONS TWO PART

SPECIFIC TERMS


R.KALPANA
PURS. & STORES OFFICER
For and on behalf of the President of India
The Purchaser

Annexure-I

Multi Parameter Water Quality Kit/Probe to measure Optical DO, EC, pH, ORP, Temperature and depth. Capable of calculating parameters such as Salinity, TDS and other.

The system should have GPS for position and automatic recording facility. The system should be capable of storing the data for short duration of time (at least). It should have option to add other **electrodes/ probes to measure optical/ion properties**.

With additional probe for measurement of optical properties such as turbidity, chlorophyll, phycocyanin, fluorescein, CDOM, etc.

With additional probe for measurement of ion such as Ammonium/ Ammonia, Nitrate, Chloride, Optionally separate quotes may be provided for calcium & fluoride compatible with the above instrument.

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Annexure -II: Specifications

1. The system should be capable of measuring following parameters with in specified range and accuracy.

Parameter	Specifications		
	Range	Resolution	Accuracy
Dissolved Oxygen	0 – 500.0% or equivalent	0.1% or better	± 1% (Low range DO) ± 10% (High range DO > 200%) or more
Conductivity (EC)	0 – 200 mS/cm or equivalent	0.01 mS/cm (low range) permissible up to 1 mS/cm (high Range > 100 mS/cm) or better	± 1% (approx.) or more
TDS	0 – 100 g/L (ppm)	1 mg/L or better	± 1% (approx.) or more
Salinity	0 – 70 PSU or equivalent	0.01 PSU or better	± 1% (approx.) or more
pH	0 – 14 pH	0.01 pH or better	± 0.1 pH or more
ORP	± 1999mV or equivalent	0.1mV or better	± 5mV or more
Temperature	-5°C – +50°C or better	0.01° or better	± 0.5° C or more
Depth	0 – 100m	0.01m or better	±0.2% (approx.) or more
Ammonium/ Ammonia	0 – 200 mg/L (ppm) or more	0.001 mg/L (low range) permissible up to 1 mg/L (high Range > 100 mg/L) or better	± 10% (approx.) or more
Chloride	0 – 15,000 mg/L (ppm) or more	0.001 mg/L (low range) permissible up to 1 mg/L (high Range > 100.0 mg/L)	± 10% (approx.) or more

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		or better	
Flouride (optional)	0 – 500 mg/L (ppm) or more	0.001 mg/L (low range) permissible up to 1 mg/L (high Range > 100.0 mg/L) or better	± 10% (approx.) or more
Nitrate	0 – 200 mg/L (ppm) or more	0.001 mg/L (low range) permissible up to 1 mg/L (high Range > 100.0 mg/L) or better	± 10% (approx.) or more
Calcium (optional)	0 – 500 mg/L (ppm) or more	0.001 mg/L (low range) permissible up to 1 mg/L (high Range > 100.0 mg/L) or better	± 10% (approx.) or more
Turbidity	0 – 3000 NTU/FNU or more	0.001 NTU/FNU (low range) permissible up to 1 NTU/FNU (high Range > 100.0 NTU/FNU) or better	± 2% (approx.) or more
Chlorophyll	0 – 400 µg/L (ppb) or more	0.01 µg/L or better	± 2% (approx.) or more
Phycocyanin (Freshwater Blue- Green Algae)	0 – 300,000 cells/mL	1 cell/mL or better	± 2% (approx.) or more
CDOM/FDOM	0 – 2,000 mg/L (ppm) or more	0.001 mg/L (low range) permissible up to 1 mg/L (high Range > 100.0 mg/L) or better	± 10% (approx.) or more
The system should be capable of resolving resistivity with in standard range			
Any other water quality parameter (optionally can be provided)			

2. Built in GPS receiver to enable location tagging with every data set

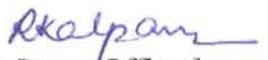
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3. Built in air pressure sensor for atmospheric compensation
4. System should have multiple ports and can take any combination of Ion specific or optical sensors. The cover of probes/connector should be so tough and heavy that, no external support to be required to dip the sensors in water. Connectors should be durable for any kind of water
5. Each of the probe should be capable of being used with different cable lengths compatible with the read out unit. Cables can be extended as an option to 3, 5, 10, 20 and 30m lengths. The probe should have connectors at both ends. The cables should be of high tensile strength, supporting the weight of probe.
6. Probes should be made up of tough marine grade aluminium that has been hard anodised, making it suitable for use in both fresh and saline waters.
7. Probes must have a built in connector allowing quick and easy cable exchange, submersible to up to 100m for 1 week.
8. If calibration solution charges are separate, vendors may quote the same for each parameter separately. If vendor willing to provide complementary set of calibration reagents/solutions at the time of the supply of the instrument, then vendors must quote the same.
9. Dual wiper self-cleaning system, fitted with central cleaning system that cleans all sensors connected with probe.
10. Grab Sample Factor facility for all fluorescent electrodes
11. On-probe storage of last calibration report values for every parameter
12. Variable EC calibration facility to allow EC calibration at any value
13. Display of all the parameters being measured and system should be capable of storing the measurement as memory.
14. New low power auto data logging mode allows automatic data capture for up to 38 days
15. Memory storage up to 10,000 data points or more
16. The read out unit should come with rubber gasket for added grip in wet condition
17. Compatible Software to download/retrieve the data
18. Suitable number of USB port/cable for data management
19. Weight of the entire system should not be heavy then 1.5 kg and easy to carry on field survey.
20. System should come in hard carry case which must be tough enough for transportation
21. System should operate in temperature condition from -5°C to +50 °C
22. Vendors may quote the cost of 3 years extended warranty other than standard warranty which comes with the system.
23. Vendors must submit authorized dealer certificate for the make of system they are providing

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SPECIAL TERMS AND CONDITIONS FOR SUBMITTING TWO PART BID

1. This is a two part tender viz., Techno-Commercial Bid (consisting of Technical Specifications, Commercial terms & condition etc.) and Price Bid. Hence, quotation should be submitted in separate sealed covers super-scribing "Tender No. GIER 2018000078-01, Due on 06/08/2018 at 14:00 Hrs (Techno-Commercial Bid)" and "Tender No. GIER 2018000078-01, Due on 06/08/2018 at 14:00 Hrs (Price Bid)"
2. Both the sealed tenders (Techno commercial & Price bid) should be kept in one big cover super scribing **Tender for** against Enquiry No **GIER 2018000078-01, Due on 06/08/2018 at 14:00 Hrs** and put in the Tender Box available in Purchase Division, IIRS or send by post or Courier within the due date and time prescribed.
3. The Techno-Commercial Bid should clearly indicate the technical details, scope of supply, payment terms, delivery terms, delivery period, taxes and duties, warranty, guarantee, security deposit, performance bank guarantee, etc. under separate heads. Please note that the **price should NOT be indicated** in the Techno-Commercial Bid
4. Tender forms can be purchased from Purchase & Store Section IIRS, Dehradun on all working days on payment of ₹ 560/- in the form of DD drawn in favor of Pay & Accounts Officer, IIRS Dehradun payable at Dehradun or can be downloaded from www.iirs.gov.in. When tender forms are downloaded, DD for ₹560/- drawn in favor of Pay & Accounts Officer, IIRS payable at Dehradun shall be attached with Technical Bid.
5. Only Techno-Commercial bid will be opened on the date of tender opening. The price Bids of those tenderers whose Techno-Commercial Bids are found to be meeting our specifications/ requirements will be opened. The bidders are allowed to attend the tender opening on the date and time of opening.
6. Late and Delayed Tenders will not be considered. Therefore, please ensure that your tender is posted well in time to reach us before the due date and time.
7. Fax/Email offers shall not be considered.
8. All the pages of your offer should be signed/initialed by competent authority and affixed with your company's Seal...
9. **EMD of ₹ 35,000/-** to be submitted along with the Technical Bid in the form of Crossed Demand Draft drawn on any Nationalized / scheduled bank in favor of Pay & Accounts Officer, IIRS, payable at Dehradun. Quotation received without EMD will not be considered. The EMD of unsuccessful bidder will be returned after finalization of order.


[Purchase & Stores Officer]

Specific terms and conditions to the tender

1. Please submit the Technical Details / Catalogue / Make/ Model/Data Sheets.
2. The offer should be valid for a period of 90 days from the date of opening of Tender.
3. **Please send the quotations ONLY in 'SEALED COVER' indicating our tender enquiry No. and due date by speed post so as to reach us on or before the due date & time. IIRS will not be responsible for any postal delays.**
4. **E- mail/ fax quotations 'WILL NOT BE ACCEPTED'.**
5. Please quote the percentage of GST applicable.
6. Our standard delivery term is FOR, IIRS. In case any vendor offers delivery term of Ex-works, Packing and Forwarding charges if any should be indicated separately either as a percentage of the quoted rate or as a Lump sum amount.
7. We are exempted from the payment of Customs Duty and necessary exemption certificate shall be issued upon request.
8. **Payment Term:** Payment will be made within 30 days from the date of receipt and acceptance of the item at our site for order value up to 2.00Lakhs. For order value above 2.0 Lakh, 90% payment will be made within 30 days and 10% against submission of Performance Bank Guarantee for the warranty period (wherever warranty is applicable). The Performance Bank Guarantee should be valid for a period of 2 months beyond the completion of the warranty period.
9. For foreign orders our Standard Payment Term is Sight Draft.
10. **Liquidated Damages** – The delivery period quoted should be realistic. The delivery period so quoted and mentioned in the order is the essence of the order/contract. In case of delay in delivery of material as per the delivery schedule, Liquidated Damage @ 0.5% per week or part thereof on the undelivered portion subject to a maximum of 10% of the contract value shall be levied. Wherever, installation and commissioning is also involved, the supply will be deemed to have been completed only when the entire Stores is supplied, installed and accepted.
11. **Security Deposit:** - Wherever the offer value is Rs. 5.00 Lakhs or above, the successful tenderer should submit Security Deposit @ 10% of the order value by way of Bank Guarantee / FD Receipt. The Bank Guarantee shall be obtained from any Scheduled Bank on Rs.200/- Non Judicial Stamp Paper and should be valid beyond 2 months from the completion of all contractual obligations.
12. In order to avail of the benefits extended to by Govt. of India to the Micro and Small Sectors, please submit attested copy of the valid Entrepreneur Memorandum Part-II signed by the General Manager, District Industries Centre / Udyog Adhar / NSIC Registration Certification along with your offer.
13. If any bidder submits forged / false document along with the tender, offer of such vendors will be summarily rejected and such bidders will be blacklisted for all future tenders.


Purchase & Stores Officer